

PIEZOELECTRIC VIBRATOR AND ITS MANUFACTURE

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Equivalents:

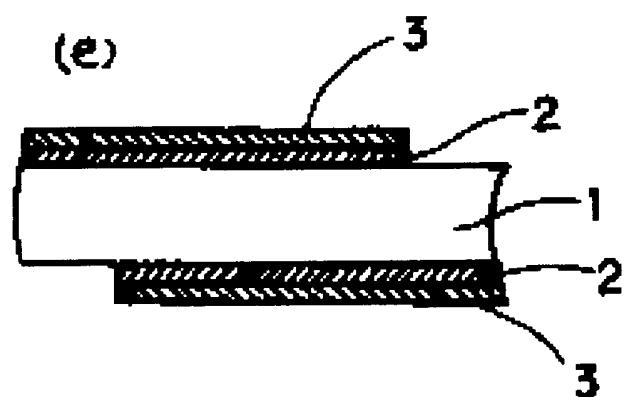
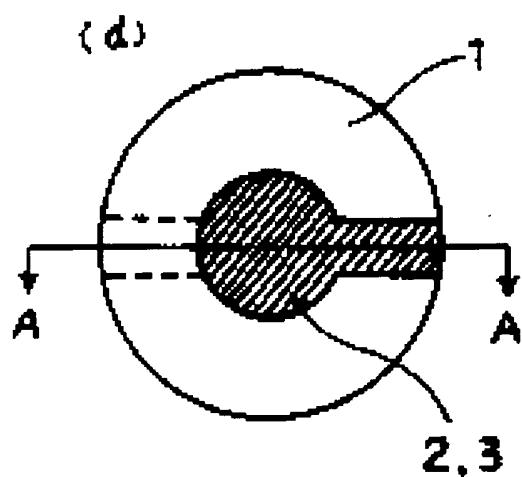
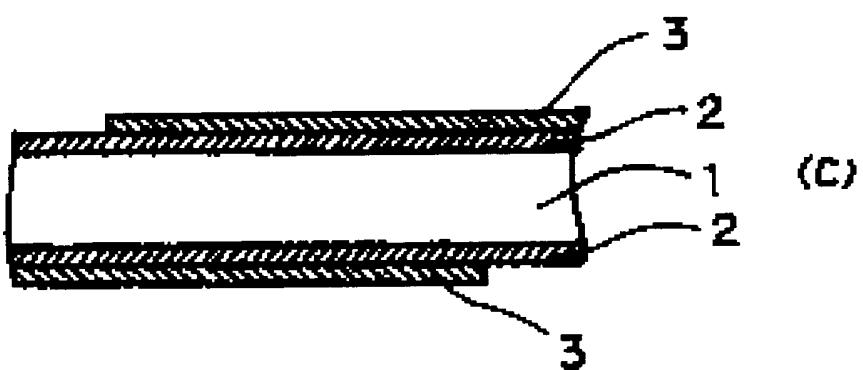
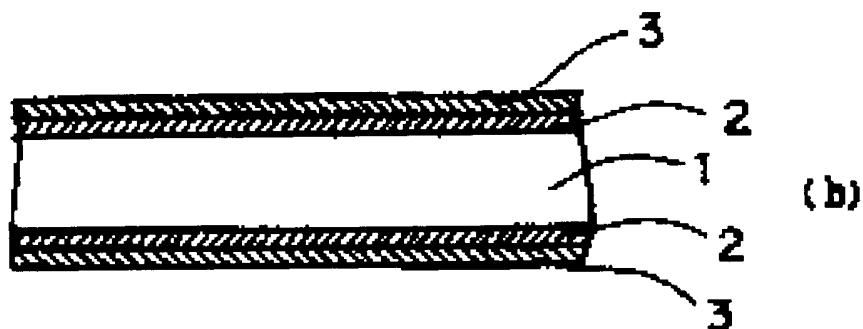
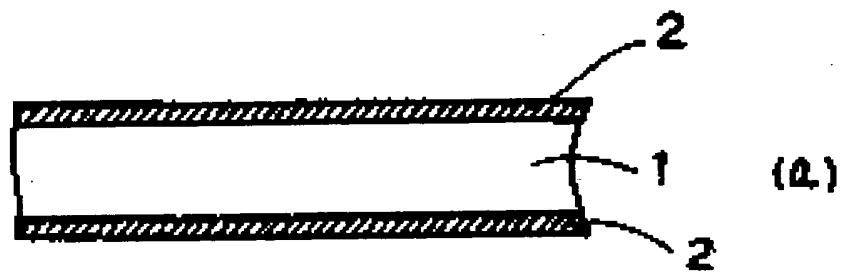
Abstract

PURPOSE: To obtain a stable vibration even for a simple package with bad air-tightness such as a plastic package by forming a resin layer to an exciting electrode and a load electrode so as to prevent deterioration such as oxidation of the metallic layer itself.

CONSTITUTION: The metallic layer 2 being the exciting electrode and the lead electrode is vapor-deposited over nearly all front face of the major surface of the AT-cut crystal vibrating board 1. After polyimide resin layer 3 having nature of photosensitivity is applied uniformly to the surface of the metallic layer 2, the part is covered with a mask so as prevent photosensing to the electrode pattern part. The electrode pattern is the exciting electrode and the lead electrode. The piezoelectric vibrator subject to photosensing is immersed to a solvent so as to dissolve the photo-sensitized part of the polyimide resin layer 3. As a result, the photo-sensitized part is removed and the metallic layer is exposed. Then the resin layer remains only for the part being the exciting electrode and lead electrode not subject to photo-sensitizing. In putting the crystal vibrator into a solution dissolving the metal, the resin layer 3 is used as a resist and the exposed part of the metallic layer 2 is solved. The crystal oscillator formed in this way shows the state that the polyimide resin layer 3 is placed on the metallic layer 2.

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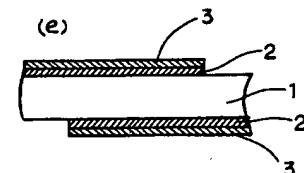
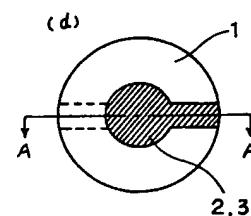
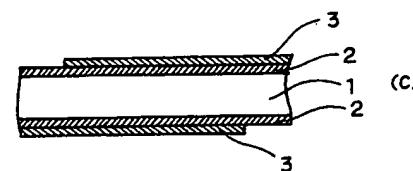
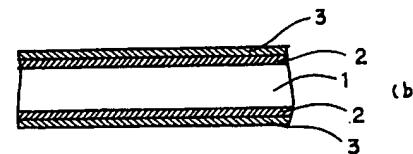
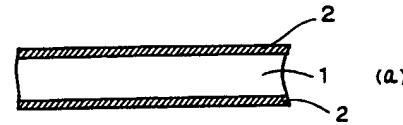
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けた状態を示す正面図である。

1 ……圧電振動板
2 ……金属層
3 ……樹脂層

特許出願人 キンセキ株式会社

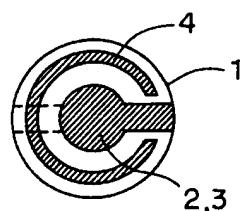
代表者 尾田武彦



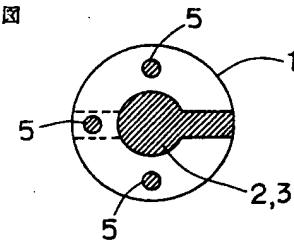
第1図

- 7 -

第2図



第3図



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